

ABSTRACT

A transparent, non elastomeric, high index, impact resistant polythiourethane / urea material comprising the reaction product of:

- a) at least one (α , ω)-diiso(thio)cyanate cycloaliphatic or aromatic prepolymer having a number average molecular weight ranging from 100 to 3000 gmol⁻¹, and
- b) at least one primary diamine, in an equivalent molar ratio amine function / iso(thio)cyanate function from 0.5 to 2, preferably from 0.90 to 1.10, wherein, said prepolymer and diamine are free from disulfide (-S-S-) linkage and at least one of the prepolymer or the diamine contains one or more S atoms in its chain.